



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,761	11/15/2001	Byung Keun Lim	P-0281	7165
34610	7590	12/23/2005	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			JAIN, RAJ K	
			ART UNIT	PAPER NUMBER
			2664	

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/987,761	Applicant(s) LIM, BYUNG KEUN	
	Examiner Raj Jain	Art Unit 2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 and 31-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29, 39 and 40 is/are allowed.
- 6) ☒ Claim(s) 1, 21, 22, 24-28, 31-36, 38 and 43 is/are rejected.
- 7) ☒ Claim(s) 2-20, 23, 37, 42, 44 and 45 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 21, 22, 24-28, 31-36, 38 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bender (US006850494B1) in view of Strawczynski et al (US006148422A).

Regarding claims 1, 22, 24, 32 and 38, Bender discloses a method of performing a multicast and broadcast transmission (see Fig. 1, the MPC sends a multicast or broadcast message to each base station MPT), comprising:

- receiving multicast/broadcast (M/B) packet data of a different network server, transmitted from a packet data serving node (PDSN), without setting links between the PDSN and target mobile stations for an M/B transmission within a mobile communication network (see Fig. 1, col 1 lines 35-57, col 4 lines 24-37, each MPC and in turn MPT receives packet data from the PDSN, the PDSN has no links established to the mobile stations or subscribers being served);

Bender fails to disclose performing of error control of the received packet and processing of the data packet by the targeted mobile stations identified by the header information.

Strawczynski discloses performing of error control of the received packet and processing of the data packet by the targeted mobile stations identified by the header information (see abstract, Figs. 2C, 5A, 5B, 5C, col 1 line 46 – col 2 line 25, col 4 lines 12-33, each data packet is temporarily stored at a given base station to perform error control prior to transmission to the subscribers, each packet maintains destination header information that identifies the particular mobile that will be receiving the data packet. Once the mobile receives the data packet, processing of the packet is performed including error detection to determine if the data in the packet is in error, if there is an error within the packet an acknowledgement of error is sent back to the BTS (see col 5 lines 57-65)).

Error correction in wireless communications provides for better voice quality that is required due to channel interference and voice compression techniques in wireless telephony.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate error correction within Bender to provide better voice quality within a wireless communications network.

Regarding claim 21, Bender discloses a base station transceiver subsystem 10 and the base station controller 16 (see Fig. 1).

Regarding claims 25, 33, Bender discloses multicast and/or broadcast messages (see col 23 line 5).

Regarding claims 26, 34, Bender discloses each BSC receiving packet data via single PDSN (see Fig 1.)

Art Unit: 2664

Regarding claim 27, 35, Bender discloses distribution of data from each MPT to the subscribers by appropriate RF channel, which would be a common channel within a CDMA system (see Fig. 1).

Regarding claims 28, 31, 36, Bender discloses, each MPC and inturn MPT receives packet data from the PDSN, the PDSN has no links established to the mobile stations or subscribers being served, (see Fig. 1, col 1 lines 35-57, col 4 lines 24-37).

Regarding claim 43, Bender discloses a base station controller 16, a base station transceiver subsystem 10 which inturn are connected to plurality of mobile terminals (see Figs. 1, 13 and 14).

Claim Objections

Claims 2-20, 23, 30, 37, 41, 42, 44 and 45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance:

Claim 29 is allowed.

Claims 39 and 40 are allowed. The prior art discloses a packet data wireless communications network having a PDSN connected to base station controller (BSC) that transmits multicast/ broadcast (M/B) packets to mobile subscribers via the base

Art Unit: 2664

transceiver stations for processing using a single communications link between the BSC and each of the number of base stations transceivers.

The prior art however fails to disclose or suggest an multicast/ broadcast M/B link access controller (LAC) that receives the M/B packet data from the data packet controller and outputs a cellular data multicasting protocol service data unit (CDMP SDU), which is generated by adding a link header to the M/B packet data or removing the link header contained in the CDMP SDU.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

Applicant's arguments filed 10/21/05 have been fully considered but they are not persuasive.

With respect to claims 1 & 38, applicant contends *Bender fails to disclose receiving multicast/broadcast packet data and there is no suggestion for receiving multicast/broadcast packet data without setting links between the PDSN and target mobile stations.*

Examiner respectfully disagrees, Bender discloses an IP network which by default carries packet data from node to node or source to destination. Furthermore

Art Unit: 2664

one skilled in the art will appreciate IP networks or packet switched networks in-fact carry "packet" data which may be unicast, multicast or broadcast, nonetheless, Bender clearly discloses within its IP network multicast/broadcast packet data transmission (see col 23 lines 2-5). Additionally Bender also discloses M/B transmission from PSDN to target mobiles in traditional topology (i.e from PSDN to BSC to mobiles Fig. 1) or distributed topology (i.e. having access points with PSDN, BSC and mobiles interconnected to an IP network Figs. 2A and 2B). The distributed topology shows that a PSDN is NOT linked to the mobiles, rather the connection is via an access point and therefore no actual link requires to be established for message or packet distribution. Lastly as for processing of packet data by the header information, Strawczynski discloses error correction and packet processing at the wireless "terminal" to recognize the data in error and identify the location in the network at which the error has occurred (see col 2 lines 5-25). Thus Bender in combination with Strawczynski does disclose the recited limitations of claims 1 and 38 and therefore claims 1 & 38 stand rejected.

With respect to claims 24 and 32, applicant contends *"The applied references do not teach or suggest transmitting the packet data from the BSC/PCF to a plurality of base stations using a single communications link between the BSC/PCF and each of the plurality of base stations."*

Examiner respectfully disagrees, Bender discloses an IP network which carries packet data from node to node, source to destination (i.e. PSDN to BSC to MPT, Fig. 1). Bender discloses transmitting packet data from an MPC (16) pool which may have one or more BSC's (Fig. 1) serving a plurality of base stations (10) using a single

Art Unit: 2664

communications link (See Figs. 1 & 13, col 4 lines 24-37, col 17 lines 26-30) between the MPC 14 to an MPT 10A or 10B and further transmitting the data to plurality of subscribers (Fig. 13, ref. 1306). Thus Bender does disclose the recited limitations of claim 24 and therefore claim 24 stands rejected.

Further with respect to claim 32, applicant further contends *the applied references do not teach or suggest determining whether each of the plurality of subscribers is an intended recipient of the packet data based on header information of the packet data.*

Strawczynski discloses packet processing at the wireless "terminal" to recognize the data in error and identify the location in the network at which the error has occurred (see Figs. 2A-2D, col 2 lines 5-25, lincs 45-51, col 4 lines 17-30). The "data packet" includes the intended recipients header information, so that the packet may be delivered to correct subscriber from a plurality of subscribers based on the header information (see also Fig. 2c which provides data packets traversing base stations using the header information). Thus the applied references do recite the claimed limitations of claim 32 and therefore claim 32 stands rejected.

Claims dependent from one or more of the independent claims remain rejected based on the applied references either alone or in combination.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 2664

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

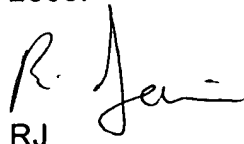
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj Jain whose telephone number is 571-272-3145.

The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax number for the organization where this application is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.


RJ

December 12, 2005


Ajit Patel
Primary Examiner